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EXAMINER	
PAULA,C	
ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)	
	09/048,026	UCHINO ET AL.	
	Examiner	Art Unit	
	CESAR B PAULA	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 February 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15)☒ Notice of References Cited (PTO-892)
16)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
18)☐ Interview Summary (PTO-413) Paper No(s). _____ .
19)☐ Notice of Informal Patent Application (PTO-152)
20)☐ Other: .

DETAILED ACTION

1. This action is responsive to the CPA filed on 2/15/2001.

This action is made non-final.

2. In the amendment, claims 1-31 are pending in the case. Claims 1, 3, 8-9, 11, 16-19, and 30-31 are independent claims.

3. The rejections of claims 1-18 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Numata (Pat. # 5,943,669, 8/24/1999, filed on 11/21/1997) in view of Takano (Pat. # 5,940,831, 8/17/1999, filed on 8/22/1997) have been withdrawn as necessitated by the amendment.

4. Claims 19, and 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Numata, in view of Lemay et al "Creating Commercial Web pages" (1996), and further in view of Shima et al (Pat. # 5,835,922, 11/10/1998, filed on 9/29/1997).

5. The rejections of claims 20-27 under 35 U.S.C. 103(a) as being unpatentable over Numata, in view of Lemay et al "Creating Commercial Web pages" (1996), and further in view of Shima et al (Pat. # 5,835,922, 11/10/1998, filed on 9/29/1997) have been withdrawn as necessitated by the amendment.

Priority

6. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d), and based on application # 09-242247 filed in Japan on 9/8/1997, which papers have been placed of record in the file.

Drawings

7. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Specification

8. The title of the invention has been modified to be more indicative of the claimed invention; therefore the objection to the title has been withdrawn.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Numata (Pat. # 5,943,669, 8/24/1999, filed on 11/21/1997) in view of Knowles et al, hereinafter Knowles (Pat. # 5,905,863, 5/18/1999, filed on 5/30/1997), and further in view of Nolan (Pat. # 5,933,599, 8/3/1999, filed on 7/17/1995).

Regarding independent claim 1, Numata discloses *a document group analysis device to classify a plurality of documents forming a set of documents into at least one group of cross-referenced documents* .....-- "...document is analyzed for its logical structure, the structural elements of the classification units are determined ....." (Col. 3, lines 52-67), "classification section 8 classifies the documents into one or more categories based on the degree of similarity among the composite vectors ....." (Col. 6, lines 9-24), and "HTML documents are

classified.....Classification units are made to be paragraphs....." (Col. 13, lines 33-67, and Col. 14, lines 1-14). Numata fails to explicitly disclose *determining for each document in the set, which of the documents is referenced.* Knowles teaches "the present invention utilizes textual context and characteristics of messages in order to provide a more reliable and effective way to construct message threads" (col. 4, lines 8-67, and col. 5, lines 1-13). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, and Knowles, because Knowles teaches the "filtering of messages to achieve a significant level of accuracy at identifying when one message is a reply to another" (col. 3, lines 60-64).

Moreover, Numata discloses *a document group keyword extraction device to extract a keyword contained in a document* .....-- "the four documents.....can be classified into two categories....based on the degree of joint-ownership of the keywords....." (Col. 2, lines 6-19). In the preceding quote, Numata teaches classifying documents extracting keywords.

Furthermore, Numata discloses *keywords extracted from the document corresponding to the title*--"document extraction selects an element from the categories that were classified with classification section 8, and displays it on the display section..... ....." (Col. 6, lines 26-37), "...the document structure of the document is analyzed , and the title element 'TITLE'....are identified and expressed as a tree arrangement....section 4.....extracts keywords" (Col. 14, lines 2-28), and "paragraph P2 of chapter 3 section 2 of document 100 illustrated in FIG. 4 is displayed as an extracted element" (Col. 12, lines 44-67, and Fig. 14). Numata fails to explicitly disclose *a document group keyword device to display a title of each document.* Nolan teaches "bulletin board navigator" (col. 11, lines 43-67, and FIG. 9). It would have been obvious to a

person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, Knowles, and Nolan, because Nolan teaches the "enhanced on-line network access system which ....is consistent, intuitive, and extensible" (col. 1, lines 63-67).

Regarding claim 2, which depends on claim 1, Numata discloses: *The apparatus wherein said document group keyword display device displays with enhancement a group of documents*-- "the four documents...can be classified into two categories" (Col. 2, lines 6-20). In the preceding quote, Numata teaches the display of the classification of 4 documents as to set the classification groups apart-- *displays with enhancement a group of documents.*

Regarding independent claim 3, Numata discloses *a document group analysis device to classify a plurality of documents forming a set of documents into at least one group of cross-referenced documents* .....-- "...document is analyzed for its logical structure, the structural elements of the classification units are determined ....." (Col. 3, lines 52-67), "classification section 8 classifies the documents into one or more categories based on the degree of similarity among the composite vectors ....." (Col. 6, lines 9-24), and "HTML documents are classified.....Classification units are made to be paragraphs....." (Col. 13, lines 33-67, and Col. 14, lines 1-14). Numata fails to explicitly disclose *determining for each document in the set, which of the documents is referenced.* Knowles teaches "the present invention utilizes textual context and characteristics of messages in order to provide a more reliable and effective way to construct message threads" (col. 4, lines 8-67, and col. 5, lines 1-13). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, and Knowles, because Knowles teaches the "filtering of messages to

achieve a significant level of accuracy at identifying when one message is a reply to another" (col. 3, lines 60-64).

Moreover, Numata discloses "the four documents.....can be classified into two categories....based on the degree of joint-ownership of the keywords....." (Col. 2, lines 6-19), and "classification section 8 classifies the documents into one or more categories based on the degree of similarity among the composite vectors ....." (Col. 6, lines 9-24). Numata fails to explicitly disclose *a document attribute analysis device to extract document attribute information*. Knowles teaches "the present invention utilizes textual context and characteristics of messages in order to provide a more reliable and effective way to construct message threads...statistical information retrieval techniques are used in conjunction with textual material obtained by filtering of messages" (col. 4, lines 8-67, and col. 5, lines 1-13). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, and Knowles, because Knowles teaches the "filtering of messages to achieve a significant level of accuracy at identifying when one message is a reply to another" (col. 3, lines 60-64).

Furthermore, Numata discloses "document extraction section 12 selects an element from the categories that were classified.....displays it on display section ....." (Col. 6, lines 26-37, and Fig. 14). Numata fails to explicitly disclose *a document group structure display device to display cross-references in each group of documents* ..... However, Nolan teaches the display of "bulletin board navigator" (col. 11, lines 43-67, and FIG. 9). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of

Numata, Knowles, and Nolan, because Nolan teaches the "enhanced on-line network access system which ....is consistent, intuitive, and extensible" (col. 1, lines 63-67).

Regarding claim 4, which depends on claim 3, Numata discloses "classification section 8 classifies the documents into one or more categories based on the degree of similarity among the composite vectors ....." (Col. 6, lines 9-24). Numata fails to explicitly: *The apparatus....displays the cross-references in each group of documents in a tree structure .....* However, Nolan teaches the display of "bulletin board navigator" (col. 11, lines 43-67, and FIG. 9, 902, FIG. 10, 1004). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, Knowles, and Nolan, because Nolan teaches the "enhanced on-line network access system which ....is consistent, intuitive, and extensible" (col. 1, lines 63-67).

Regarding claim 5, which depends on claim 3, Numata discloses: *The apparatus.....said document group structure display device further displays a plurality of topics.....*-- "FIG. 14 is a classification tale that illustrates the results which manually classify the documents in the experimental set....." (Col. 15, lines 53-65). In the preceding quote, Numata teaches the display of *a plurality of topics* of the classified documents.

Regarding claim 6, which depends on claim 5, Numata discloses: *The apparatus.....said document group structure display device displays each topic and a relevant node .....*--"FIG. 14 is a classification tale that illustrates the results which manually classify the documents in the experimental set....." (Col. 15, lines 53-65). In the preceding quote, Numata teaches the display of *a plurality of topics* of the classified documents.

Regarding claim 7, which depends on claim 3, Numata discloses "document extraction section 12 selects an element from the categories that were classified.....displays it on display section ....." (Col. 6, lines 26-37). Numata fails to explicitly disclose: *The apparatus.....said document group structure display device displays with enhancement a node corresponding to a document* ..... However, Nolan teaches the display of "bulletin board navigator" (col. 11, lines 43-67, and FIG. 9, 208). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, Knowles, and Nolan, because Nolan teaches the "enhanced on-line network access system which....is consistent, intuitive, and extensible" (col. 1, lines 63-67).

Regarding independent claim 8, Numata discloses *a document group analysis device to classify a plurality of documents forming a set of documents into at least one group of cross-referenced documents* .....-- "...document is analyzed for its logical structure, the structural elements of the classification units are determined ....." (Col. 3, lines 52-67) , "classification section 8 classifies the documents into one or more categories based on the degree of similarity among the composite vectors ....." (Col. 6, lines 9-24), and "HTML documents are classified.....Classification units are made to be paragraphs ....." (Col. 13, lines 33-67, and Col. 14, lines 1-14, Fig. 14). Numata discloses *a document group analysis device to classify a plurality of documents forming a set of documents into at least one group of cross-referenced documents* .....-- "...document is analyzed for its logical structure, the structural elements of the classification units are determined ....." (Col. 3, lines 52-67), "classification section 8 classifies the documents into one or more categories based on the degree of similarity among the composite vectors ....." (Col. 6, lines 9-24), and "HTML documents are

classified.....Classification units are made to be paragraphs....." (Col. 13, lines 33-67, and Col. 14, lines 1-14). Numata fails to explicitly disclose *determining for each document in the set, which of the documents is referenced.* Knowles teaches "the present invention utilizes textual context and characteristics of messages in order to provide a more reliable and effective way to construct message threads" (col. 4, lines 8-67, and col. 5, lines 1-13). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, and Knowles, because Knowles teaches the "filtering of messages to achieve a significant level of accuracy at identifying when one message is a reply to another" (col. 3, lines 60-64).

Moreover, Numata discloses "the four documents.....can be classified into two categories....based on the degree of joint-ownership of the keywords....." (Col. 2, lines 6-19), and "classification section 8 classifies the documents into one or more categories based on the degree of similarity among the composite vectors ....." (Col. 6, lines 9-24). Numata fails to explicitly disclose *a document attribute analysis device to extract document attribute information.* Knowles teaches "the present invention utilizes textual context and characteristics of messages in order to provide a more reliable and effective way to construct message threads...statistical information retrieval techniques are used in conjunction with textual material obtained by filtering of messages" (col. 4, lines 8-67, and col. 5, lines 1-13). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, and Knowles, because Knowles teaches the "filtering of messages to achieve a significant level of accuracy at identifying when one message is a reply to another" (col. 3, lines 60-64).

Moreover, Numata discloses *a topic analysis device to further classify each of the classified group of documents based on topics extracted from each document*-- "Reclassification indication section 11 selects the categories which are to be reclassified....." (Col. 6, lines 20-24). Numata fails to explicitly disclose *a topic analysis device to further classify each group of cross-referenced documents based on topics extracted from each document, and a topic keyword extraction device*. Knowles teaches "the filtered potential parent messages....are then passed along...The child, or reply, message...is also processed" (col. 7, lines 56-67, and col. 8, lines 1-67). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, and Knowles, because Knowles teaches the "filtering of messages to achieve a significant level of accuracy at identifying when one message is a reply to another" (col. 3, lines 60-64).

Furthermore, Numata discloses *a topic keyword display device for displaying .....a relevant title and a keyword extracted*-- "document extraction section 12 selects an element from the categories that were classified.....displays it on display section ....." (Col. 6, lines 26-37, and Fig. 14). Numata fails to explicitly disclose *a topic keyword display device for displaying ...keywords extracted from each document*. However, Nolan teaches the display of "bulletin board navigator" (col. 11, lines 43-67, and FIG. 9). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, Knowles, and Nolan, because Nolan teaches the "enhanced on-line network access system which ....is consistent, intuitive, and extensible" (col. 1, lines 63-67).

Claims 9-11, 12, 13-18 are directed towards a relevant document display method for implementing the apparatus found in claim 1-3, 4-8, 1, and 3 respectively, and are, similarly rejected.

Regarding independent claim 19, Numata discloses "HTML documents are classified.....Classification units are made to be paragraphs ....." (Col. 13, lines 33-67, and Col. 14, lines 1-14) Numata fails to explicitly disclose *displaying on a display device a group of documents containing cross-referenced message document....of a forum and a message board...a document contributed earlier is referenced by documents contributed afterwards.* Nolan teaches "bulletin board navigator" (col. 11, lines 43-67, and FIG. 9). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, and Nolan, because Nolan teaches the "enhanced on-line network access system which ....is consistent, intuitive, and extensible" (col. 1, lines 63-67).

Moreover, Numata discloses "classification section 8 classifies the documents into one or more categories based on the degree of similarity among the composite vectors ....." (Col. 6, lines 9-24). Numata fails to explicitly disclose *a contents estimation device for estimate contents.....patterns of opinion input by authors.* Numata fails to explicitly disclose *determining for each document in the set, which of the documents is referenced.* Knowles teaches "the present invention utilizes textual context and characteristics of messages in order to provide a more reliable and effective way to construct message threads...statistical information retrieval techniques are used in conjunction with textual material obtained by filtering of messages" (col. 4, lines 8-67, and col. 5, lines 1-13). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, and Knowles,

because Knowles teaches the "filtering of messages to achieve a significant level of accuracy at identifying when one message is a reply to another" (col. 3, lines 60-64).

Moreover, Numata discloses *an input device to input a retrieval request*-- "some systems extract key words from documents and automatically perform the retrieval of documents. Using....the document and the query" (Col. 1, lines 20-24). In the preceding quote, Numata teaches the input of a query to generate the retrieval of documents.

Moreover, Numata discloses *a retrieval engine device to retrieve a document in the document database*-- "the document retrieval device comprises.....a document extraction section....." (Col. 5, lines 30-41). In the preceding quote, Numata teaches a retrieval device for retrieving documents from a database.

Furthermore, Numata discloses *a view generation device to generate plurality of views*-- "document extraction section 12 selects an element from the categories that were classified.....and displays it on display section" (Col. 6, lines 25-37, and Fig. 14). However, Numata fails to explicitly disclose *a view generation device to generate plural types of views*..... Nolan teaches "bulletin board navigator" (col. 11, lines 43-67, and FIG. 9). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, and Nolan, because Nolan teaches the "enhanced on-line network access system which ....is consistent, intuitive, and extensible" (col. 1, lines 63-67).

Regarding claim 20, which depends on claim 19, Numata discloses "document extraction section 12 selects an element from the categories that were classified.....and displays it on display section....." (Col. 6, lines 25-37). Numata fails to explicitly disclose *The apparatus....view generation means allows a user to easily understand an entire structure of*

reference. However, Nolan teaches "bulletin board navigator" (col. 11, lines 43-67, and FIG. 9). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, Knowles, and Nolan, because Nolan teaches the "enhanced on-line network access system which....is consistent, intuitive, and extensible" (col. 1, lines 63-67).

Regarding claim 21, which depends on claim 19, Numata discloses "document extraction section 12 selects an element from the categories that were classified.....and displays it on display section....." (Col. 6, lines 25-37). Numata fails to explicitly disclose: *The apparatus.... displays a reference tree structure of displayed documents.* However, Nolan teaches "bulletin board navigator" (col. 11, lines 43-67, and FIG. 9). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, Knowles, and Nolan, because Nolan teaches the "enhanced on-line network access system which ....is consistent, intuitive, and extensible" (col. 1, lines 63-67).

Regarding claim 22, which depends on claim 19, Numata discloses "document extraction section 12 selects an element from the categories that were classified.....and displays it on display section....." (Col. 6, lines 25-37). Numata fails to explicitly disclose: *The apparatus.... displays a reference tree structure of displayed documents.....containing user input keyword.* However, Nolan teaches "bulletin board navigator" (col. 11, lines 43-67, and FIG. 9). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, Knowles, and Nolan, because Nolan teaches the "enhanced on-line network access system which ....is consistent, intuitive, and extensible" (col. 1, lines 63-67).

Regarding claim 23, which depends on claim 19, Numata discloses "document extraction section 12 selects an element from the categories that were classified.....and displays it on display section....." (Col. 6, lines 25-37). Numata fails to explicitly disclose: *The apparatus....so that a user to easily understand an entire structure of reference...pattern estimated about the documents by said contents estimation means.* However, Nolan teaches "bulletin board navigator" (col. 11, lines 43-67, and FIG. 9). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, Knowles (topic patterns), and Nolan (document display), because Nolan teaches the "enhanced on-line network access system which ....is consistent, intuitive, and extensible" (col. 1, lines 63-67).

Regarding claim 24, which depends on claim 19, Numata teaches "documents may be retrieved based on their degree of similarity to the query, indicative of the quality of the document search." (Col. 3, lines 65-67). Numata fails to explicitly disclose: *The apparatus.....device displays in a calendar format.....* Nolan teaches "bulletin board navigator" (col. 11, lines 43-67, and FIG. 9-10). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, Knowles, and Nolan (document calendar/date display), because Nolan teaches the "enhanced on-line network access system which ....is consistent, intuitive, and extensible" (col. 1, lines 63-67).

Regarding claim 25, which depends on claim 19, Numata discloses "document extraction section 12 selects an element from the categories that were classified.....and displays it on display section....." (Col. 6, lines 25-37). Numata fails to explicitly disclose: *The apparatus....device displays, at a high intensity level, a specified topic pattern.* However, Nolan

teaches "bulletin board navigator" (col. 11, lines 43-67, and FIG. 9). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, Knowles (topic patterns), and Nolan (document intensity display--208), because Nolan teaches the "enhanced on-line network access system which ....is consistent, intuitive, and extensible" (col. 1, lines 63-67).

Regarding claim 26, which depends on claim 19, Numata discloses "documents may be retrieved based on their degree of similarity to the query, indicative of the quality of the document search." (Col. 3, lines 65-67). Numata fails to explicitly disclose: *The apparatus.....retrieve only a document corresponding to a question and answer in a specified topic pattern.....* However, it would have been obvious to a person of ordinary skill in the art at the time of the invention to had combined the teachings of Numata, Knowles (topic patterns), and Nolan, because Numata teaches in the preceding quote the retrieval of document through the means of a query—*question and answer.*

Regarding claim 27, which depends on claim 19, Numata discloses "document extraction section 12 selects an element from the categories that were classified.....and displays it on display section....." (Col. 6, lines 25-37). Numata fails to explicitly disclose: *The apparatus.... device displays a specified author at a high intensity level based on a history of input opinions....* However, Nolan teaches "bulletin board navigator" (col. 11, lines 43-67, and FIG. 9-10,). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, Knowles, and Nolan (high intensity display of author), because Nolan teaches the "enhanced on-line network access system which....is consistent, intuitive, and extensible" (col. 1, lines 63-67).

Regarding claim 28, which depends on claim 19, Numata discloses "classification section 8 classifies the documents into one or more categories based on the degree of similarity among the composite vectors ....." (Col. 6, lines 9-24). Numata fails to explicitly disclose *said view generation device displays as a directed graph an author of each document*. However, Nolan teaches "bulletin board navigator" (col. 11, lines 43-67, and FIG. 9-10). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, and Nolan, because Nolan teaches the "enhanced on-line network access system which....is consistent, intuitive, and extensible" (col. 1, lines 63-67).

Regarding claim 29, which depends on claim 19, Numata discloses "documents may be retrieved based on their degree of similarity to the query, indicative of the quality of the document search." (Col. 3, lines 65-67). Numata fails to explicitly disclose: *The apparatus....document stored in the document database is a message.....* However, it would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined the teachings of Numata, and Knowles, because Numata teaches in the preceding quote the retrieval of documents such as *network news.*

Claim 30 is directed towards a method of displaying a relevant document for implementing the apparatus found in claim 19, and is similarly rejected.

Claim 31 is directed towards a computer-readable storage medium for storing the apparatus found in claim 19, and is similarly rejected.

Response to Arguments

11. Applicant's arguments filed 6/9/2000 have been fully considered but they are not persuasive. Regarding claims 1-18, and in response to applicant's arguments, the recitation "none of the cited portions of Numata teaches or suggests that the documents retrieved by the device disclosed in Numata are cross-referenced as recited in the claims" (p. 9, lines 17-26, and p.10, lines 1-7) has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Moreover, regarding claims 1, 3, 8-9, and 16-17, the Applicants state: "However, nothing was cited indicating what would provide the requisite suggestion or incentive to one of ordinary skill in the art to modify Numata to meet the limitations" (p. 10, lines 29-30). Numata discloses a classification format where a topic or title for a group of documents is shown (Fig. 14), thereby providing a strong a concise motivation to produce the limitation recited in claim 1.

Moreover, regarding claim 3, the Applicants remark: "Takano does not disclose displaying a tree structure in which each node contains document attribute information...(or) abbreviated information" (p. 11, lines 9-12). The Examiner disagrees with this submission, because Takano discloses the display of each node with its attribute information, and abbreviated information (Fig. 6) in a tree format (Fig. 11) as it was recited in claim 3.

12. Applicant's arguments with respect to claims 19, and 28-31 have been considered but are moot in view of the new ground(s) of rejection. The Applicants remark: "nothing was cited in any of the three references used to reject claims 19, 28-31 describing the cross-referencing" (p. 11, lines 24-29). These limitations are directed towards newly added limitations, therefore, the Applicants are directed to the rejection of these limitations above in view of the newly found prior art.

Conclusion

I. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. HORVITZ et al. (Pat. # **6,161,130**), SANU et al. (Pat. # **5,974,409**), GAGE et al. (Pat. # **5,923,846**), MACHIRAJU et al. (Pat. # **6,028,601**), ANTHONY (Pat. # **5,815,830**), and MCGOVERN et al. (Pat. # **5,978,768**).

II. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cesar B. Paula whose telephone number is (703) 306-5543. The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 4:00 p.m. (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached on (703) 308-5186. However, in such a case, please allow at least one business day.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Any response to this Action should be mailed to:

Director United States Patent and Trademark Office

Washington, D.C. 20231

Or faxed to:

- (703) 308-9051, (for formal communications intended for entry)

Or:

- (703) 308-5403, (for informal or draft communications for discussion only, please label "**PROPOSED**" or "**DRAFT**").

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

CBP

05/01/01

HEATHER R. HERNDON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100